## SEQUENCE LISTING

<400> 1

<213> Homo sapiens

| atgtctccgg | cgcgtcggtg | cagggggatg | agggccgcgg | tggctgccag | cgtggggttg | 60  |
|------------|------------|------------|------------|------------|------------|-----|
| aqcqaqgggc | ctgctggctc | ccggagcggt | cgcctcttcc | gcccgccgag | tecegeteeg | 120 |
| acadeceeca | gcgcccggct | gttgcggctc | ccggggagcg | gggccgtgca | ggccgcgagc | 180 |
| ccggagcgcg | ccggctggac | cgaggcgctg | cgggccgccg | tggccgagct | gegegeegge | 240 |
| gccgtggtgg | ccgtccccac | cgatacgctg | tacggcctgg | cctgcgcggc | gagctgctcg | 300 |
| gcggctctgc | gcgctgtgta | ccgcctcaag | ggtcgcagcg | aggccaagcc | tctggccgta | 360 |
| tgcctcggcc | gcgtggccga | cgtctacaga | tactgccgtg | tgagagtacc | tgaggggctc | 420 |
| ctgaaagacc | tactgccagg | accagtgacc | ctggtgatgg | aacgctcgga | ggagctcaac | 480 |
| aaggacctaa | acccttttac | gcctcttgta | ggcattcgga | ttcctgatca | tgcttttatg | 540 |
| caagacttgg | ctcagatgtt | tgagggtccg | cttgctctca | ctagtgccaa | cctcagctcc | 600 |
| caggccagtt | ctctgaatgt | cgaggagttc | caggatctct | ggcctcagtt | gtccttggtt | 660 |
| attgatgggg | gacaaattgg | ggatggccag | agccccgagt | gtcgccttgg | ctcaactgtg | 720 |
| gttgatttgt | ctgtgcccgg | aaagtttggc | atcattcgtc | caggctgtgc | cctggaaagt | 780 |
| actacagcca | tcctccaaca | gaagtacgga | ctgctcccct | cacatgcgtc | ctacctgtga | 840 |

```
<210> 2
<211> 100
<212> PRT
<213> Homo sapiens
```

<400> 2

 Met
 Ser
 Pro
 Ala
 Arg
 Arg
 Cys
 Arg
 Gly
 Met
 Arg
 Ala
 A

```
Ala Val Val Ala Val Pro Thr Asp Thr Leu Tyr Gly Leu Ala Cys Ala
               85
Ala Ser Cys Ser Ala Ala Leu Arg Ala Val Tyr Arg Leu Lys Gly Arg
                      105
                                         110
Ser Glu Ala Lys Pro Leu Ala Val Cys Leu Gly Arg Val Ala Asp Val
                                      125
           120
Tyr Arg Tyr Cys Arg Val Arg Val Pro Glu Gly Leu Leu Lys Asp Leu
                135
                                  140
Leu Pro Gly Pro Val Thr Leu Val Met Glu Arg Ser Glu Glu Leu Asn
             150
                               155
Lys Asp Leu Asn Pro Phe Thr Pro Leu Val Gly Iso Arg Iso Pro Asp
                170
His Ala Phe Met Gln Asp Leu Ala Gln Met Phe Glu Gly Pro Leu Ala
           185
                                          190
Leu Thr Ser Ala Asn Leu Ser Ser Gln Ala Ser Ser Leu Asn Val Glu
         200
                                      205
Glu Phe Gln Asp Leu Try Pro Gln Leu Ser Leu Val Iso Asp Gly Gly
                       220
      215
Gln Iso Gly Asp Gly Gln Ser Pro Glu Cys Arg Leu Gly Ser Thr Val
              230
                      235
Val Asp Leu Ser Val Pro Gly Lys Phe Gly Iso Iso Arg Pro Gly Cys
                            250
Ala Leu Glu Ser Thr Thr Ala Iso Leu Gln Gln Lys Tyr Gly Leu Leu
                         265
Pro Ser His Ala Ser Tyr Leu
   275
```

<210> 3 <211> 1387 <212> DNA <213> Homo sapiens

<400> 3

| natttcggca   | ctagggaacg | ctcggaggag | ctcaacaagg | acctaaaccc | ttttacgcct | 60   |
|--|------------|------------|------------|------------|------------|------|
| cttgtaggca   | ttcggattcc | tgatcatgct | tttatgcaag | acttggctca | gatgtttgag | 120  |
| ggtccgcttg   | ctctcactag | tgccaacctc | agctcccagg | ccagttctct | gaatgtcgag | 180  |
| gagttccagg   | atctctggcc | tcagttgtcc | ttggttattg | atgggggaca | aattggggat | 240  |
| ggccagagcc   | ccgagtgtcg | ccttggctca | actgtggttg | atttgtctgt | gcccggaaag | 300  |
| tttggcatca   | ttcgtccagg | gtgtgcctgg | gaaagtacta | cagccatcct | ccaacagaag | 360  |
| tacggactgc   | tcccctcaca | tgcgtcctac | ctgtgaaact | ctgggaagca | ggaaggccca | 420  |
| agacctggtg   | ctggatacta | tgtgtctgtc | cactgacgac | tgtcaaggcc | tcatttgcag | 480  |
| aggccaccgg   | agctagggca | ctagcctgac | ttttaaggca | gtgtgtcttt | ctgagcactg | 540  |
| tagaccaagc   | ccttggagct | gctggtttag | ccttgcacct | ggggaaagga | tgtatttatt | 600  |
| tgtattttca   | tatatcagcc | aaaagctgaa | tggaaaagtt | aagaacattc | ctaggtggcc | 660  |
| ttattctaat   | aagtttcttc | tgtctgtttt | gtttttcaat | tgaaaagtaa | ttaaataaca | 720  |
| gatttagaat   | ctagtgagag | cntcctctct | gggggtggtg | gcatttaagg | ttcaacccan | 780  |
| ccnagaagtg   | ctgcgctgtt | taaaaagtct | caggtggctg | cgtgtggtgg | ctcatgcctg | 840  |
| taatcccaac   | attctgggag | gcccaggcgg | gagaactgct | tgagcccagg | agttcagaat | 900  |
| cagcctgggc   | aacatagcaa | tactccgtct | cataaaaatt | aataaataaa | aagtctcagg | 960  |
| tgaccaaagg   | ctcctgaagc | tagaaccagg | tttggataaa | gattgaagag | ccacaggcca | 1020 |
| ctcttccctc   | tgagccattg | ggcctagtgg | tgtcatgtat | tgtaattgct | cgcagggaga | 1080 |
| gcagtctttt   | tggtgtaata | gtgggatgtc | tgcttagttg | gcaggggttc | agtccaaatg | 1140 |
| gaagaatatt   | gggaaataaa | cctccnctat | cctttatagc | cagggacttt | tttcttattt | 1200 |
| attcataaaa   | taaattatag | ttaattatac | ccataacacc | tttatttaaa | tccagtgttc | 1260 |
| tccgcagcct   | tttgtctatt | tatatgtgta | ccaagtgtta | aacataatta | ttattgggca | 1320 |
| tttgaacntg   | tttttcntta | naganatnct | gnnattaaac | atatttgtna | atggnaaaaa | 1380 |
| aaaaaaa  |            |            |            |            |            | 1387 |
| and the second s |            |            |            |            |            |      |

```
<210> 4
<211> 1048
<212> DNA
<213> Mus musculus
```

<400> 4

| atgtctacgg | cgcgtccgtg | cgcggggctg | agggccgccg | tggcggccgg | catggggttg | 60  |
|------------|------------|------------|------------|------------|------------|-----|
| agcgacgggc | cggctagttc | tggccgcggc | tgccgcctcc | tactccctcc | tgagcccgct | 120 |
| ccggcgctgc | cgggggcccg | gctgctgcgg | cttccggaga | gcgagcccgt | ggaagccgcg | 180 |
| agccccgagc | gcgccggctg | gaccgaggcg | ctgcgggccg | ccgtggccga | gctgcgcgcc | 240 |
| ggcgccgtgg | tggcggtccc | gaccgacacg | ctctacggcc | tggcctgctc | ggcgagcagc | 300 |
| teggeggeee | tgagttgcgt | gtaccgcctc | aaaggccgca | gcgaggccaa | gccgctggcc | 360 |
| gtgtgcctgg | gccgcgtggc | cgacgtctac | aggtactgtc | aggtgagagt | acctagggag | 420 |
| ctcctggaag | acctgttccc | aggccctgtg | accctggtga | tggagcgctc | cgaggagctc | 480 |
| aacaaagacc | tgaacccctt | tactcgtctt | gttggcatcc | ggattcctga | ccatgccttc | 540 |
| atgctggact | tggcccagat | gtttggggga | ccacttgcac | tcactagtgc | caacctcagc | 600 |
| tcccaggcca | gttctctgag | tgttgaggag | ttccaagacc | tctggcctca | tttgtccctt | 660 |
| gtcattgatg | gggggccaat | tggggatagt | cagagccctg | agtgtcgcct | cggctctact | 720 |
| gtggttgact | tatctgtgcc | tggaaagttt | ggcattattc | gcccaggctg | tgccctggaa | 780 |
| aacactacat | cgatcctcca | gcagaaatat | gggctgctcc | cttcacaggg | gtcctgttca | 840 |
| tgaaacttgg | gaggacccaa | ggacatgctg | gatactatgt | gtctgctact | ggatgcaaag | 900 |
| cctcattgcc | tgaggttcct | acatctatag |            |            |            | 930 |

<210> 5 <211> 149 <212> PRT <213> Mus musculus

<400> 5

Met Ser Thr Ala Arg Pro Cys Ala Gly Leu Arg Ala Ala Val Ala Ala 5 10 Gly Met Gly Leu Ser Asp Gly Pro Ala Ser Ser Gly Arg Gly Cys Arg Leu Leu Pro Pro Glu Pro Ala Pro Ala Leu Pro Gly Ala Arg Leu 40 Leu Arg Leu Pro Glu Ser Glu Pro Val Glu Ala Ala Ser Pro Glu Arg 55 Ala Gly Try Thr Glu Ala Leu Arg Ala Ala Val Ala Glu Leu Arg Ala 70 75 Gly Ala Val Val Ala Val Pro Thr Asp Thr Leu Tyr Gly Leu Ala Cys 90 8.5 Ser Ala Ser Ser Ser Ala Ala Leu Ser Cys Val Tyr Arg Leu Lys Gly 100 105 Arg Ser Glu Ala Lys Pro Leu Ala Val Cys Leu Gly Arg Val Ala Asp 120 125 Val Tyr Arg Tyr Cys Gln Val Arg Val Pro Arg Glu Leu Leu Glu Asp 140 135 Leu Phe Pro Gly Pro Val Thr Leu Val Met Glu Arg Ser Glu Glu Leu 150 155 Asn Lys Asp Leu Asn Pro Phe Thr Arg Leu Val Gly Iso Arg Iso Pro 170 Asp His Ala Phe Met Leu Asp Leu Ala Gln Met Phe Gly Gly Pro Leu 185 Ala Leu Thr Ser Ala Asn Leu Ser Ser Gln Ala Ser Ser Leu Ser Val

```
200
                                                205
        195
Glu Glu Phe Gln Asp Leu Try Pro His Leu Ser Leu Val Iso Asp Gly
                                            220
                        215
Gly Pro Iso Gly Asp Ser Gln Ser Pro Glu Cys Arg Leu Gly Ser Thr
                    230
                                        235
Val Val Asp Leu Ser Val Pro Gly Lys Phe Gly Iso Iso Arg Pro Gly
                                    250
                245
Cys Ala Leu Glu Asn Thr Thr Ser Iso Leu Gln Gln Lys Tyr Gly Leu
                                265
Leu Pro Ser Gln Gly Ser Cys Ser
        275
```

<210> 6 <211> 702 <212> DNA <213> Bos Taurus

<400> 6

```
60
qqccqtcccc aacgatacgc tgtacgggct ggcctgctcg gcgagctgct cggaagcact
                                                                        120
gggcgccgtg taccgtgtca agggccgcag cgagaccaag ccgctggccg tatgcctggg
                                                                        180
ccqcqtggcc gacgtctaca ggtactgcca cgtgagagta cctgaggggc tcctgaagga
cctqttqcca ggaccagtga ccctggtgat ggaacgctca gaggagctca acaaggacct
                                                                        240
                                                                        300
quatcettte acteetetty taggeateeg gatteetgae caegeettea tgeaggaett
ggtccagatg tttggggggc cactcgctct caccagtgcc aacctcagct cccagtccag
                                                                        360
ctctctgaat gttgaggaat tccaggacct gtggcctcac ttgtccctga tcattggtgg
                                                                        420
gggaccaatt ggggacggcc agagcccaga gtgtcgacta ggctcaactg tggttgactt
                                                                        480
                                                                        540
gtctgtgcct ggaaagtttg gcatcattcg tcctggttgt gcccttgaaa gtacttcagc
catectecag gagtatggge tgeteceete acatggatee tgetggtgae actetggagg
                                                                        600
agggaaggcc caagggctgg tgctggacac tatgtgtccg actgctggtg gttggcaagg
                                                                        660
cctcatttgc agaggctgct agggctacag tgttagtagt ct
                                                                        702
```

<210> 7 <211> 126 <212> PRT <213> B. Taurus

<400> 7

Met Glu Arg Ser Glu Glu Leu Asn Lys Asp Leu Asn Pro Phe Thr Pro 10 Leu Val Gly Ile Arg Ile Pro Asp His Ala Phe Met Gln Asp Leu Val 25 Gln Met Phe Gly Gly Pro Leu Ala Leu Thr Ser Ala Asn. Leu Ser Ser 40 Gln Ser Ser Ser Leu Asn Val Glu Glu Phe Gln Asp Leu Trp Pro His 55 60 Leu Ser Leu Ile Ile Gly Gly Gly Pro Ile Gly Asp Gly Gln Ser Pro 75 70 Glu Cys Arg Leu Gly Ser Thr Val Val Asp Leu Ser Val Pro Gly Lys 90 Phe Gly Ile Ile Arg Pro Gly Cys Ala Leu Glu Ser Thr Ser Ala Ile 105 110 Leu Gln Glu Tyr Gly Leu Leu Pro Ser His Gly Ser Cys Trp 120

<210> 8

60

120 180 240

300

840 841

```
<211> 841
         <212> DNA
         <213> Rattus novartis
         <400> 8
gatagtgaaa gccctgagtg tcgtcttggc tctactgtgg ttgacttgtc tgtgcctgga
aagtttggca ttattcgctc aggctgtgcc ctggaaaata ctacagccat cctccagggg aaatatgggc tgctcccttc acaggggtcc tgttcatgaa acttgggagg acccaagaac catgctggat actatgtgtc tactacaggt tggcaaagcc tcattggctg aggttcctgg
agctacatct gtagcctagc tttttaggca gtgtccttgg ctctgaatcc tgtaggccag
agctacatct gtagcctagc tttttaggca gtgtccttgg ctctgaatce tgtaggccag ccagaagctt cgggttgagc cttgcacca ggggaaggtt atattactc tgtagattca tgtgtcaacc cagaatggag ggaagaacat tcttagagtg accttattat tttaagtgcc cttctcaccc caaccctgcc tataagttaa ggtaacttgac tgcagaatta gaatgcatta agggagaggt tccaggaag cactaatgca gtctaggagg tgtcattg ggaaaatta tctaggagg cctggccaga gcttctggg tacaggaaga tggtcattg gagaaaatta tctaggagt tccaaatgaa ataatattga aaaataaata cttgactgtt tcaggccagt gacttctta tttattggta tagttctctg
tttaatttat ttaactcaga agtcatcttt gttcatatgt ctacctggta tttacataat
<210> 9
          <211> 83
          <212> PRT
          <213> Rattus novartis
          <400> 9
 Asp Ser Glu Ser Pro Glu Cys Arg Leu Gly Ser Thr Val Val Asp Leu
                                                       10
 Ser Val Pro Gly Lys Phe Gly Ile Ile Arg Ser Gly Cys Ala Leu Glu
                                                                          30
                                               25
                   20
 Asn Thr Thr Ala Ile Leu Gln Gly Lys Tyr Gly Leu Leu His Arg
                                         40
 Gly Pro Val His Glu Thr Trp Glu Asp Pro Arg Thr Cys Trp Ile Leu
                                                               60
                                   55
 Cys Val Tyr Tyr Arg Leu Ala Lys Pro His Trp Leu Arg Phe Leu Glu
                                                         75
                               70
 65
 Leu His Leu
           <210> 10
           <211> 28
           <212> DNA
           <213> Mus musculus
           <400> 10
  qqaattccat atggagcgct ccgaggag
           <210> 11
           <211> 26
           <212> DNA
           <213> Mus musculus
           <400> 11
```

`

taggatecte aggeaatgag getttg